

REMARKS

Claims 1-10 are pending in the present application. Claims 11-20 are withdrawn subject to a restriction requirement. The Examiner rejected claims 1-10. Reconsideration of the application is respectfully requested in view of the following responsive remarks. For the Examiner's convenience and reference, the Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

In the office action of November 28, 2006 the following actions were taken:

- (1) The Examiner requested affirmation of election of claims 1-10 in response to a restriction/election requirement.
- (2) The Examiner objected to the specification because "[t]he claimed aspect in Claim 6 of an open cavity that is partially defined by the build material and partially open to a surface of the three-dimensional object does not appear to be disclosed in the specification."
- (3) Claim 6 was rejected under 35 U.S.C. 112 as failing to comply with the written description requirement.
- (4) Claims 1-10 were rejected under 35 U.S.C. 102(b) as being anticipated by Ryan et al (WO 98/21626, hereinafter "Ryan").

It is respectfully submitted that the presently pending claims be examined and allowed. The Applicant submits that each and every amendment herein is fully supported by the specification as originally filed, and that no new matter has been added.

Affirmation of Election

The Applicant affirms the election of claims 1-10 in response to the election/restriction requirement. A provisional election of the noted claims was initially made during a phone conversation with Mr. W. Bradley Haymond, and is herein affirmed.

Objection to the specification

The Examiner persisted in his objection to the specification as not properly disclosing the claimed aspect in claim 6. In response to the previous and identical

objection in the Office Action of March 8, 2006, the Applicant amended the specification to specifically include the subject matter of interest. In response to the Amendment, the Examiner argues that the amendment constitutes new matter as not being disclosed in the original specification.

By the proposed Amendment, the Applicant merely incorporated the subject matter of originally filed claim 6 into the specification. Such amendment, according to the M.P.E.P., does not constitute new matter: "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter." M.P.E.P. 2163.06. Further, the amendment of subject matter originally disclosed in claims into the specification is specifically permitted. "The claims as filed in the original specification are part of the disclosure and therefore, if an application as originally filed contains a claim disclosing material not disclosed in the remainder of the specification, the applicant may amend the specification to include the claimed subject matter." *In re Benno*, 768 F.2d 1340, 226 USPQ 683 (Fed. Cir. 1985), and M.P.E.P. 2163.06, III. This is exactly the present case. Claim 6 was originally filed with the Application. The Examiner objected to the specification because the subject matter of claim 6 was not disclosed in the original specification. Therefore, amendment to incorporate the subject matter of claim 6 into the specification is allowable, proper, and does not constitute new matter. As such, Applicant requests the removal of the objection to the specification.

Rejection under 35 U.S.C. § 112, first paragraph

The Examiner repeated the rejection to claim 6 under 35 USC § 112, first paragraph, as containing subject matter not described in the specification. As the specification has been properly amended (see section above) herein to include the subject matter of claim 6 in the detailed description section of the specification, the Applicant believes the subject matter of claim 6 to be fully supported in the specification and respectfully requests reconsideration and removal of this rejection.

Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-10 under 35 U.S.C. 102(b) as being anticipated by Ryan. Before discussing these rejections, it is thought proper to briefly

state what is required to sustain such a rejection. It is well settled that "[a] claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). In order to establish anticipation under 35 U.S.C. 102, all elements of the claim must be found in a single reference. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986), *cert. denied* 107 S.Ct. 1606 (1987). In particular, as pointed out by the court in *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1981), *cert denied*, 469 U.S. 851 (1984), "anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference." "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.* 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Ryan does not teach all of the elements of claim 1. As claims 2-9 depend from claim 1, they, too, are not anticipated by Ryan. Specifically, Ryan does not teach a support material configured to impart a predetermined property other than support, nor does it teach a build material configured to be deposited in layers.

The present invention, according to claim 1, requires "support material configured to be deposited adjacent to the build material for supporting the build material during formation of the three-dimensional object, said support material also being configured to form a feature that imparts a predetermined property, other than support, within the three-dimensional object." The Examiner relates a layer of relief forming polymer of Ryan to the presently claimed support material and further notes that the relief forming polymer "imparts a predetermined property of retention, which is a property other than support..." Respectfully, the Applicant must disagree with this assessment. Retention is, in fact, support. Therefore, retention is not a predetermined property other than support, as required by the present claims. Retention being support is consistent with the presently filed application. Specifically, the specification discusses support material being "configured to be deposited adjacent to the build material for supporting the build material during formation of the three-dimensional object." pg. 7, ln. 1-3. Depositing support material adjacent to the build material would certainly provide a retaining feature or function. In the sentence immediately following, the specification reads "[t]he

support material can *also* be configured to form a feature that imparts a predetermined property within the three-dimensional object..." pg. 7, ln. 3-5, emphasis added. It is clear from the specification, and would likewise be clear to one of ordinary skill in the art that, in the context of use of support materials, providing retention is a form of providing support. As such, Ryan does not teach each and every element of the presently claimed invention.

Additionally, Ryan does not teach a build material configured to be deposited in layers to form a three-dimensional object. The Examiner relates the build material of the present invention to the functionalizing material of Ryan. The functionalizing material, as noted by the Examiner, can be deposited to substantially fill a channel. More specifically, Ryan teaches that the structure can be made by lining the walls and base of channels first with a catalyst. Then, functionalizing material can be deposited by electroless deposition or electroplating to cause the functionalizing material to substantially fill the channels. Ryan pg. 23, ln. 16-23. Filling channels, as taught in Ryan, does not teach, expressly or inherently, depositing material in layers. Further, the deposition processes of Ryan are not akin to the deposition in layers of the present invention. Essentially, the channels are formed to provide retaining features wherein the functionalizing material can be deposited to a limit where it substantially fills the channel. This type of processing does not teach a build material configured to be deposited in layers to form a three-dimensional object.

In reference to the other claims, the Examiner is encouraged to review the Applicant's response to the Office Action of March 8, 2006, containing a thorough discussion regarding the distinctions between (a) the presently claimed build material and Ryan's functionalizing material; and (b) the presently claimed support material and Ryan's relief forming polymer. Additionally, the Applicant respectfully submits that "a liquid that is configured to be deposited in layers using an ink-jet printhead" of claim 2 does, in fact, limit the build material, not the method, and should be afforded patentable weight in that it must at least be (a) a liquid, and (b) configured for use with ink-jet architecture.

Thus, Ryan does not teach all of the elements of claim 1. The support material of the present invention must offer an additional feature other than mere support when being utilized for that purpose. The support material cited by the Examiner in the Ryan reference offers support only, even retention as a support function.

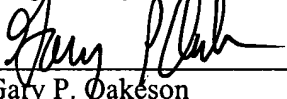
Furthermore, Ryan does not teach a build material configured to be deposited in layers to form a three-dimensional object. Consequently, Applicant requests removal of the rejection.

In view of the foregoing, Applicants believe that claims 1-10 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Jeff Limon at (541) 715-5979 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 28th day of February, 2007.

Respectfully submitted,



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